**PATENT APPLICATION**

I hereby certify that this correspondence is being filed electronically to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on May 25, 2007.

Susan Wilkes, Paralegal

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|---|---|
| Applicant: Arvind A. Raichur et al. | Examiner: Chau T. Nguyen |
| Serial No. 09/641,031 | Group Art Unit: 2176 |
| Filed: August 16, 2000 | |
| For: DYNAMIC INDEX AND SEARCH ENGINE SERVER | |

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
ATTN: Board of Patent Appeals and Interferences

**BRIEF FOR APPELLANTS**
**UNDER 37 C.F.R. § 1.192**

(1) Real Party in Interest

The real parties in interest are: The parties named in the caption.

(2) Related Appeals and Interferences

There are no other appeals or interferences known to Appellants or Appellants' legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 1-24 stand finally rejected. All claims 1-24 are being appealed.

(4) Status of Amendments

Not applicable.

(5) Summary of Claimed Subject Matter

In the present invention, which is a method, apparatus, and software for providing personalized search capabilities of hypertext transmission protocol pages, each user starts with a hierarchical index (74; see Fig. 4) of, for example, the entire Internet, and then customizes that index to suit their needs. They can exclude topics (78,80,82,84,86,88,100 of Fig. 7), change the hierarchy of the topics (126 to 128 in Fig. 6), change the name of a topic (page 10, line 9), add links to any topic (page 12, lines 21-26), etc. For purposes of illustration in addition to that of the specification and figures, a user may have an index that starts with the major topics (each with many sub-topics), such as:

| | | |
|---|---|---|
| **Arts**<br>Movies, Television, Music... | **Business**<br>Jobs, Real Estate, Investing... | **Computers**<br>Internet, Software, Hardware... |
| **Games**<br>Video Games, RPGs, Gambling... | **Health**<br>Fitness, Medicine, Alternative... | **Home**<br>Family, Consumers, Cooking... |
| **Kids and Teens** | **News** | **Recreation** |

| | | |
|---|---|---|
| Arts, School Time, Teen Life... | Media, Newspapers, Weather... | Travel, Food, Outdoors, Humor... |
| **Reference**<br>Maps, Education, Libraries... | **Regional**<br>US, Canada, UK, Europe... | **Science**<br>Biology, Psychology, Physics... |
| **Shopping**<br>Autos, Clothing, Gifts... | **Society**<br>People, Religion, Issues... | **Sports**<br>Baseball, Soccer, Basketball... |

*Figure 1*

This might also be represented by folders as follows. again for illustration:

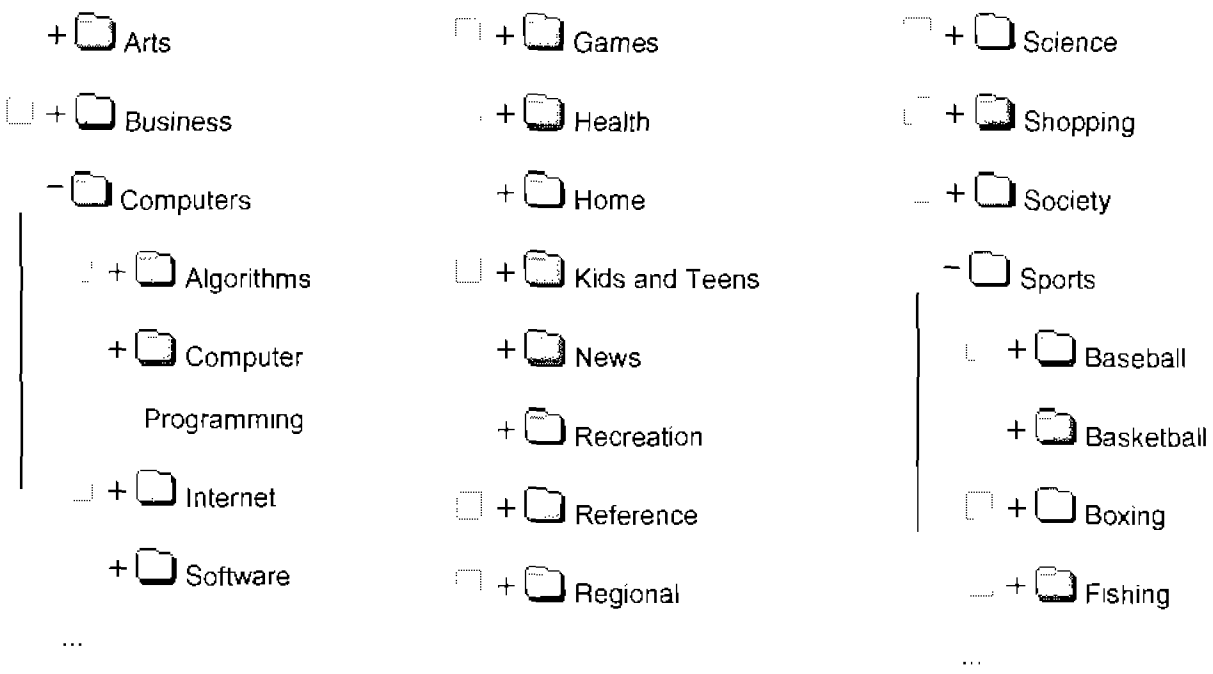



*Figure 2*

This user could then exclude the following topics: "Arts", "Health", "Kids and Teens", "Regional", "Shopping" and "Society". They could then rename "News" to "Current Information," rename "Recreation" to "Fun Stuff" and move the subcategory of "Basketball" (under "Sports") and the subcategory of "Computer Programming" (under "Computers") to the top level. The user would then have:

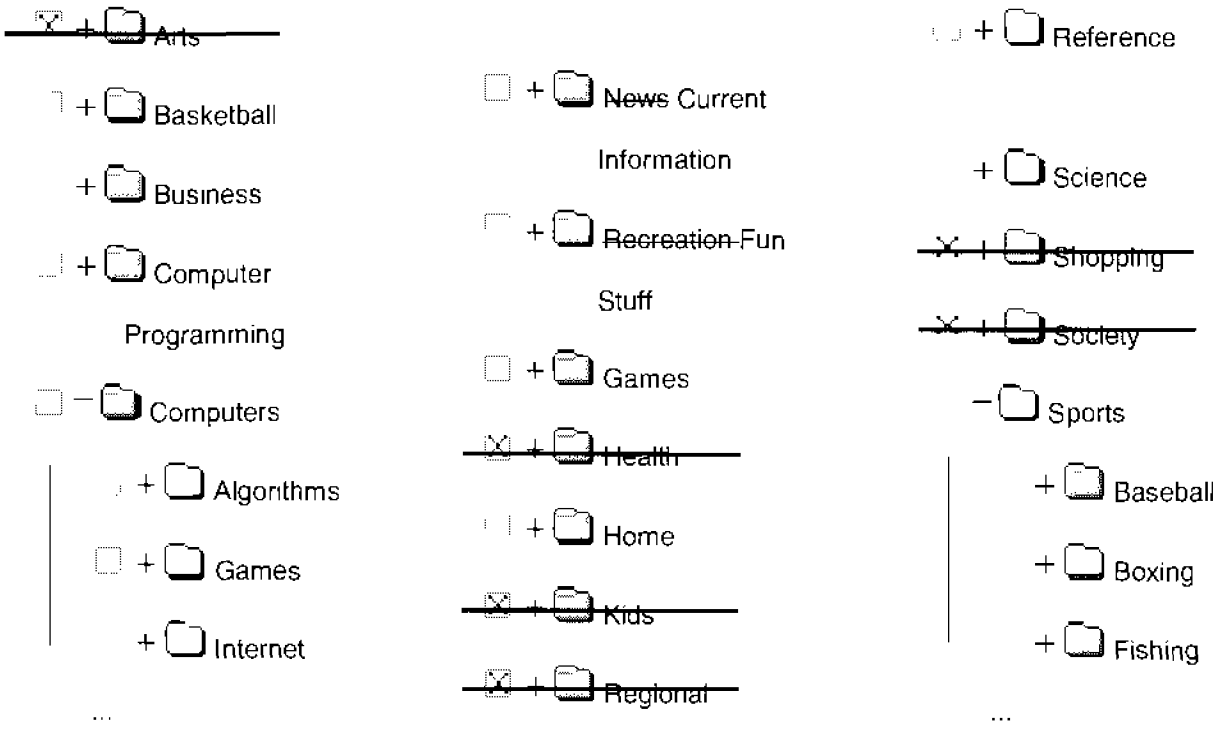



*Figure 3*

Or, again for illustration:

| | | |
|---|---|---|
| **Basketball**<br>NCAA, NBA, Youth.. | **Business**<br>Jobs, Real Estate, Investing... | **Computer Programming**<br>Algorithms, Chats, Education... |
| **Computers**<br>Internet, Software, Hardware... | **Current Information**<br>Media, Newspapers, Weather... | **Fun Stuff**<br>Travel, Food, Outdoors, Humor. . |
| **Games**<br>Video Games, RPGs, Gambling... | **Home**<br>Family, Consumers, Cooking... | **Reference**<br>Maps, Education, Libraries... |
| **Science**<br>Biology, Psychology, Physics... | **Sports**<br>Baseball, Football, Soccer... | |

*Figure 4*

Please note the differences between Figure 1 and Figure 4. The shaded topics in Figure 4 are updated from Figure 1 and other topics have been excluded.

This is just one example of how a user can rename any number of topics and subtopics, rearrange the hierarchy of topics and subtopics, and exclude topics and subtopics using the invention. And, of course, each user can customize to their heart's content their particular index served by the index server.

Once the user has customized their individual index, it will be dynamically maintained by the index server of the invention. If a website becomes obsolete it will be automatically removed. If a new website becomes available, it will automatically be added (e.g., if a new "NBA basketball" site is published online, it will automatically be added to the "NBA basketball" topic).

The user can then:

(1) Have this customized, dynamic index "served" to their website (page 10, lines 19-23). In this manner they can have their customized web index on their own website and it will be dynamically maintained and "served" to their website by the present invention, the Dynamic Index Search Engine ("DISE") server.

(2) Perform a search on just the websites that are included in their own index (page 8, lines 5-7). To use the example above; after the user customized their index, a search of the index would not yield the sites under the "Arts", "Health", "Kids and Teens" , "Regional", "Shopping" and "Society" areas because those topics have been excluded.

It is important to note that a user does not have to know that a webpage exists for it to be included or excluded in their customized web index. A user does not need to keep track of whether a website becomes obsolete. Any obsolete website is automatically deleted from every user's web index. Furthermore, any new website is automatically added without the user having to do the work.

(6) Grounds of Rejection to be Reviewed on Appeal

(i) Whether claims 1, 5-9, 13-17, and 21-24 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 5,970.489, to Jacobson et al. ("Jacobson") in view of U.S. Patent No. 6.338,059, to Fields et al. ("Fields"); and

(ii) Whether claims 2-4, 10-12, and 18-20 are unpatentable under 35 U.S.C. § 103(a) over Jacobson in view of Fields and further in view of U.S. Patent No. 6.209,007, to Kelley et al. ("Kelley").

(7) Argument

(i) 35 U.S.C. § 103(a) (Jacobson in view of Fields)

(A) Independent claims 1, 9, and 17

The rejection is traversed in that the independent claims simply do not read on the cited combination(s).

In Jacobson, a user can define "region-sets" that consist of webpages on the Internet (called "regions"). These region-sets can then be searched. A search of the region set would yield results that fall under the "tree" for each of the webpages in the region-set. For example, a user might set up region sets of two websites, namely att.com/page1 and qwest.com/page2. When the user searches they will only get results that fall under the tree for these two pages (e.g., att.com/page1/result1 and qwest.com/page2/foo/result2, but not att.com/AnotherPage because it does not fall under the tree). The user can define any number of these region-sets and then can create other region-sets by performing set logic on these region-sets. For example, they can have a region-set that consists of the intersection or union of two other region-sets.

Jacobson does not disclose a "hierarchical plurality of topic categories". Jacobson's region-sets are one-dimensional lists of websites. They have no hierarchy whatsoever. Furthermore, Jacobson does not contain topic categories. The second Examiner appears to relate the region-sets to topic categories, and then attempts to relate the regions (web pages such as att.com/page1) in the region-sets to sub-topics, and then presumably relates the pages under the tree of the regions (such as att.com/page1/page2) to sub-subtopics. However, this completely stretches Jacobson and the meaning of "hierarchy" and "topic categories" in a manner one of ordinary skill in the art would not understand. In fact, with its one-dimensional list of region sets, Jacobson teaches away from the present invention!

The trees of the webpages or "regions" in Jacobson are not equivalent to a web index (or a hierarchical plurality of topic categories), they are merely a collection or group of multiple websites that may or may not even relate to one another topically. One of ordinary skill in the art would not understand the webpages in a region to be a sub-hierarchy in a hierarchical plurality of topic categories.

Furthermore, Jacobson does not disclose a "permitting a user to specify any subset of the plurality of topic categories". In Jacobsen, all a user can do is specify a region-set to search, and can create new region-sets through set logic operations. In the present invention, recall that the plurality of topic categories is hierarchical and changeable by the user. The user, by reorganizing the topic categories in the user's hierarchy, can create a topic category that can be any subset of topic categories in the

hierarchy. All that Jacobsen allows one to do is to create and specify subsets of its region-sets, which again are not topic categories.

The present Examiner (the third to handle this application) during a telephone interview had other misconceptions concerning the invention that should be pointed out, which are next discussed to avoid their further propagation.

Again, the underlying problem is that the present invention is of a customizable and hierarchical index, whereas the prior art shows merely an index that is partially customizable but not hierarchical. In the prior art, what is indexed is hierarchical, but not the index itself. The primary reference teaches away from a hierarchical topic index structure by using merely a flat structure of region-sets.

The Examiner opined that a site administrator could alter an index hierarchy (for example in a prior art search engine, such as Yahoo.com), and that Applicants' invention would read on that. This illustrates three misconceptions. First (and principally), a site administrator acting in such capacity would not be a "user" as understood by one of ordinary skill in the art. Second, the Examiner should not be using non-cited prior art in order to object to Applicants' claims. Third, the Examiner should not be rejecting a claim based upon an added reference for a single claim element, as the claim as a whole must be considered.

The Examiner also seemed of the view that the ability to pick a subset of a hierarchy to search reads on Applicants' claim element regarding specification of any subset. "Any" means "any", and anyone of ordinary skill in the art would so read it. So any applicable prior art having a hierarchical topic index such as Yahoo.com, again as yet uncited, that relates to the ability to choose a single subset, does not read on the ability of the user of the present invention to specify any subset of the hierarchy. All they have to do is to rearrange their hierarchy to their desire.

Neither Fields nor Kelley cure the above noted deficiencies of Jacobson. Fields relates to a hyperlinked search interface for a distributed database involving selecting a word that is then linked to search results concerning that word. Kelley relates to webpage searches in which the located webpages are stored locally, including non-HTML source code. Accordingly, all claims presented are patentable.

As far as Applicants are aware, Applicants invention as claimed is still nowhere to be found on the Internet, some 7.5 years after Applicants' initial patent filing. I.e., there still are no search engines that allow users to customize their own hierarchical set of topic categories (which can be any subset, not merely a subset, of the initial set) and then search only that customized set.

(B) Dependent claims 5-8, 13-16, and 21-24

The rejection is traversed in that the dependent claims simply do not read on the cited combination(s).

(1) Claims 5, 13, and 21

Jacobson does not teach "allowing the user to rename one or more categories of the subset" (dependent claims 5, 13, and 21). The Examiner appears to relate the region-sets to topic categories, and then attempts to relate the regions (web pages such as att.com/page1) in the region-sets to sub-topics, and then presumably relates the pages under the tree of the regions (such as att.com/page1/page2) to sub-subtopics.

In Jacobson, the user can rename the region-sets, but not the regions, nor the sub-regions, nor the sub-sub-regions. In the present invention, not only can the highest level topics be renamed, but all of the topics can be renamed. So under the "Sports" topic a user can choose to rename each sport (e.g., rename "Basketball" to "BBall" and rename "Soccer" to "Futball"), then rename each topic under each sport and so on.

In order for the user to do this in Jacobson, he would not only have to be able to rename the region-sets, but regions and the trees of the regions. This is impossible since the regions in Jacobson are websites out on the Internet which neither the user nor the invention in Jacobson have control over. In other words, to give Jacobson the power that the present invention has, a user of the Jacobson invention should have the ability to rename the pages of someone else's website, which is obviously not contemplated in Jacobson or even possible.

(2) Claims 6, 14, and 22

Jacobson does not teach "allowing the user to rearrange hierarchicalization of one or more categories" (dependent claims 6, 14, and 22). To repeat, the invention in Jacobson has no hierarchy of topic categories. Jacobsen's region-sets are one-dimensional lists of websites (the websites are what are hierarchically arranged in a tree structure). Jacobson presents a flat structure that is not hierarchical in the first place.

In the present invention, a user can move a sub-sub-topic to the top level and can even move the top level topic "Recreation" under "Sports >> Basketball >> Professional >> NBA" (though it may not make sense to another user). In order for this to be possible in Jacobson, a user would need to be able to place the att.com/page1 website under att.com/page1/page2/page3, which is not possible.

In Jacobson, a user can only change the region-sets (which are one-dimensional lists of webpages). In Jacobson, the user has no control whatsoever over the regions themselves. The user cannot rearrange the hierarchy (or tree structure) of the regions since the regions in Jacobson are websites on the Internet that neither the user nor the invention in Jacobson control. In other words, to give Jacobson the power that the present invention has, a user of Jacobson's invention should have the ability to re-order the pages of someone else's website, which is obviously not contemplated in Jacobson or even possible.

(3) Claims 7, 15, and 23

Jacobson does not teach "permitting the user ... to include or exclude subcategories" (dependent claims 7, 15, and 23). The second Examiner appears to relate the region-sets to topic categories, and then attempts to relate the regions (web pages such as att.com/page1) in the region-sets to sub-categories, and then presumably relates the pages under the tree of the regions (such as att.com/page1/page2) to sub-subcategories.

In the present invention, a user can choose to exclude any topic category, subcategory, sub-subcategory, etc. A user can include or exclude "Sports >> Basketball >> Professional >> NBA." This would not be possible in Jacobson. In Jacobson, a user can only change the region-sets (which are one-dimensional lists of webpages). In Jacobson, the user has no control whatsoever over the regions

themselves. The user cannot choose to exclude any part of the hierarchy (or tree structure) of the regions since the regions in Jacobson are websites on the Internet that neither the user nor the invention in Jacobson control. To relate Jacobson to the power of the present invention, a user in Jacobson would need to be able to exclude the att.com webpage, keep the page att.com/page1, but exclude att.com/page1/page2. In other words, to give Jacobson the power that the present invention has, a user of Jacobson invention should have the ability to delete any number of pages of someone else's website.

(4) Claims 8, 16, and 24

Jacobson does not teach that the user may specify any subset of the plurality of topic categories (the second element of each independent claim) "at any time, whereby the link information is dynamically updated to correspond to a new subset" (dependent claims 8, 16, and 24).

In the present invention, a user customizes their web index and then the user can choose to search only that customized web index. As discussed above, Jacobson does not teach allowing a user to "specify any subset of the [hierarchical] plurality of topic categories by the user at any time."

Furthermore, the user of the present invention does not have to know that a webpage exists for it to be included in their customized web index. A user does not need to keep track of whether a website becomes obsolete. Any obsolete website is automatically deleted from every user's web index. Furthermore, any new website is automatically added without the user having to do the work. In Jacobson the user not only has to know of the existence of a pertinent website for it to be added, the user has to manually add it to a region-set. If a website in one of their region-sets becomes obsolete it is not automatically removed and any new websites that should theoretically fall under a region-set are not dynamically added. Therefore, the region-sets of Jacobson are not dynamically updated, only the websites contained are so updated. As a result, in Jacobson a search could very easily be conducted of obsolete websites or fail to search websites that should have been included in the search.

(ii) 35 U.S.C. § 103(a) (Jacobson in view of Fields and Kelley)

Dependent claims 2-4, 10-12, and 18-20

The rejection is traversed in that the claims simply do not read on the cited combination(s).

To begin, Kelley does not cure the above noted deficiencies of Jacobson and Fields. Kelley relates to webpage searches in which the located webpages are stored locally, including non-HTML source code (e.g., Java). When changes occur on the remote webpage, corresponding changes can be made on the local copy.

The present invention, as further claimed in the claims at issue, does not involve making a copy of a remote webpage or pages. Rather, as claimed in claim 2, a link to a webpage may be included by a user under a subcategory of the hierarchical index, which webpage would not be accessed by any other user using that same subcategory. This concept simply is not relevant to Kelly, nor does it appear therein.

(8) Claims Appendix (Attached).

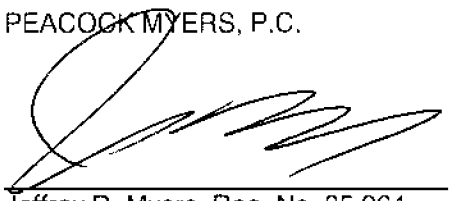
(9) Evidence Appendix (Attached).

(10) Related Proceedings Appendix (Attached)

To conclude, claims 1-24 are patentable and allowance of the patent application is respectfully requested.

Respectfully submitted,

PEACOCK MYERS, P.C.

By: 

Jeffrey D. Myers, Reg. No. 35,964
Direct Dial: (505) 998-1502

P.O. Box 26927
Albuquerque, New Mexico 87125-6927

Telephone: (505) 998-1500
Facsimile: (505) 243-2542

**Customer No. 005179**

G:\A-CLIENTS\AMDS\Raichur\Raichur_BRIEF.doc

CLAIMS APPENDIX

Claims

1. A method of providing personalized search capabilities of hypertext transmission protocol pages, the method comprising the steps of:

a) providing an index server maintaining a permanent but dynamic index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories whose contents are maintained and updated by the index server;

b) permitting a user to specify any subset of the plurality of topic categories; and

c) adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches of the index server in any category of the subset but only of categories in the subset.

2. The method of claim 1 additionally comprising the steps of permitting the user to propose addition of a hypertext transmission protocol page to the index server in conjunction with one or more categories of the subset and automatically adding the proposed page to the index server wherein the user can search the proposed page via the link information and wherein initially other users will not search the proposed page even if searching the proposed one or more categories.

3. The method of claim 2 wherein the automatically adding step comprises the steps of verifying that a uniform resource locator address for the proposed page is valid and that the proposed page is not already indexed under the proposed one or more categories.

4. The method of claim 2 additionally comprising the step of subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

5. The method of claim 1 additionally comprising the step of allowing the user to rename one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user.

6. The method of claim 1 additionally comprising the step of allowing the user to rearrange hierarchicalization of one or more categories of the subset as it will appear on the hypertext transmission protocol page controlled by the user.

7. The method of claim 1 wherein the permitting step comprises permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in the branch, or both.

8. The method of claim 1 wherein steps b) can be reexecuted by the user at any time, whereby the link information is dynamically updated to correspond to a new subset.

9. An apparatus providing personalized search capabilities of hypertext transmission protocol pages, said apparatus comprising:

an index server maintaining a permanent but dynamic index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories whose contents are maintained and updated by said index server;

a link permitting a user to specity any subset of said plurality of topic categories; and

a link adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches of said index server in any category of said subset but only of categories in said subset.

10. The apparatus of claim 9 additionally comprising a link permitting the user to propose addition of a hypertext transmission protocol page to said index server in conjunction with one or more categories of said subset and automatically adding said proposed page to said index server wherein the user can search said proposed page via said link information and wherein initially other users will not search said proposed page even if searching said proposed one or more categories.

11. The apparatus of claim 10 wherein said proposed addition link comprises means for invoking verification that a uniform resource locator address for said proposed page is valid and that said proposed page is not already indexed under said proposed one or more categories.

12. The apparatus of claim 10 additionally comprising means for subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

13. The apparatus of claim 9 additionally comprising a link allowing the user to rename one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

14. The apparatus of claim 9 additionally comprising a link allowing the user to rearrange hierarchicalization of one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

15. The apparatus of claim 9 wherein said permitting link comprises means for invoking means permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in said branch, or both.

16. The apparatus of claim 9 wherein said permitting link can be reexecuted by the user at any time, whereby said link information is dynamically updated to correspond to a new subset.

17. Computer software stored on a computer readable medium providing personalized search capabilities of hypertext transmission protocol pages, said software comprising:

index server code maintaining a permanent but dynamic index to hypertext transmission protocol pages and employing a hierarchical plurality of topic categories whose contents are maintained and updated by said index server code;

link code permitting a user to specify any subset of said plurality of topic categories; and

link code adding to a hypertext transmission protocol page controlled by the user link information permitting execution of searches via said index server code in any category of said subset but only of categories in said subset.

18. The software of claim 17 additionally comprising link code permitting the user to propose addition of a hypertext transmission protocol page to said index server code in conjunction with one or more categories of said subset and automatically adding said proposed page to those indexed by said index server code wherein the user can search said proposed page via said link information and wherein initially other users will not search said proposed page even if searching said proposed one or more categories.

19. The software of claim 18 wherein said proposed addition link comprises code for invoking verification that a uniform resource locator address for said proposed page is valid and that said proposed page is not already indexed under said proposed one or more categories.

20. The software of claim 18 additionally comprising code for subsequently allowing other users to search the proposed page when searching one or more of the proposed one or more categories.

21. The software of claim 17 additionally comprising link code allowing the user to rename one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

22. The software of claim 17 additionally comprising link code allowing the user to rearrange hierarchicalization of one or more categories of said subset as it will appear on said hypertext transmission protocol page controlled by the user.

23. The software of claim 17 wherein said permitting link code comprises code for invoking code permitting the user within a branch of a hierarchy of categories to either include or exclude subcategories in said branch, or both.

24. The software of claim 17 wherein said permitting code can be reexecuted by the user at any time, whereby said link information is dynamically updated to correspond to a new subset.

## EVIDENCE APPENDIX

(Not Applicable)

RELATED PROCEEDINGS APPENDIX

(Not Applicable)